YAKIMETS, L.S.; GOL'DBERG, V.N.

Role and place of tracheostomy in the prevention and treatment of acute respiratory insufficiency following heart surgery. Sov.med. 28 no.11:21-27 N '65. (MIRA 18:12)

1. Klinika torakal'noy khirurgii (zav. - doktor med.nauk L.N.Sidorenko, nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR prof. N.M.Amosov) Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza i grudnoy khirurgii (direktor - dotsent A.S.Mamolat), Kiyev.

ACCESSION NR: AP[illegible] S/0020/64/159/004/0782/0785

AUTHOR: Yakimets, V. V.

TITLE: Bremsstrahlung of ultrarelativistic electrons in condensed amorphous bodies

SOURCE: AN SSSR. Doklady, v. 159, no. 4, 1964, 782-785

TOPIC TAGS: ultrarelativistic electron, bremsstrahlung, amorphous body, pair production

ABSTRACT: A general method previously developed by the author (with V. M. Galitskiy, ZhETF v. 46, 1966, 1964) for the determination of the effect of the medium on parts of [illegible] system consisting of the medium, an electron, and an electromagnetic field. The influence of absorption of quanta on the bremsstrahlung of high-energy electrons [illegible]

Card 1/2

L 18264-65
ACCESSION NR: AP5000913

is significant to shift strongly towards the classical region, where the frequency is much lower than the initial electron energy. In the quantum-mechanical calculation the differential electron energy losses acquire an additional dependence on the [illegible] and on the [illegible]

ASSOCIATION: None

SUBMITTED: 04May64 ENCL: 00

SUB CODE: NP, GP NR REF SOV: 006 OTHER: 002

Card 2/2

YAKIMENKO, Yu. F.

KHAZHINSKIY, Yu.N.; YAKIMENKO, Yu.F.; FEL'IMAN, V.G.

Use of the "NIGRIS" vibrating conveyer for hot return agglomerate. (MIRA 10:10)
TSvet.met. 28 no.5:12-17 S-O '55.
(Conveying machinery)
(Ore dressing)

YAKIMENKO-SHEEYNAU, L.V.

"The Character of Compulsory Distribution of Radio-iron in the Organism by Means of Ionophoresis" p. 112, in the book Experience in the Use of Radioactive Isotopes in Medicine R. Ye. KAVETSKIY and I.T. SHEVCHENKO, published by the Gosmedizdat Publishing House of the UKRAINIAN SSR, KIEV 1955, represents medical transactions of a conference held in KIEV from 18-20 January 1954.

So: 1100235

ACC NR: AP6037075 SOURCE CODE: UR/0056/66/051/005/1469/1475

AUTHOR: Yakimets, V. V.

ORG: Moscow Engineering-Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut)

TITLE: Contribution to the theory of spectral-line broadening

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 5, 1966, 1469-1475

TOPIC TAGS: spectral line, line broadening, Green function, correlation function, particle interaction

ABSTRACT: The Green's function method is used to determine the spectral-line broadening due to the interaction between an atom and surrounding particles. The interaction correlation function is regarded as a particular case of the two-particle Green's function which can be calculated by a diagram technique. This makes possible summation of an infinite number of important terms, at least when using the binary collision approximation. By obtaining the binary approximation through a consistent quantum-mechanical calculation, a general solution is obtained for the problem of line broadening by a foreign gas, without additional simplifying assumptions such as used in the impact or statistical theory. The line shape caused by the pressure of the foreign gases is obtained in the binary collision approximation. The author thanks V. M. Galitskiy and V. I, Kogan for valuable advice and discussions. Orig. art. has: 29 formulas.

SUB CODE: 20/ SUBM DATE: 14May66/ ORIG REF: 004/ OTH REF: 005

Card 1/1

ACC NR: AP6037087 SOURCE CODE: UR/0056/66/051/005/1569/1574

AUTHOR: Alekseyev, A. I.; Yakimets, V. V.

ORG: Moscow Engineering Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut)

TITLE: Electromagnetic radiation in an absorbing medium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 5, 1966, 1569-1574

TOPIC TAGS: electromagnetic radiation, laser radiation, electromagnetic wave absorption, magnetic dipole, dipole interaction

ABSTRACT: The authors point out that most existing investigations of electromagnetic radiation are limited to types of radiation (Cerenkov, transition, diffraction), which is characterized by the fact that it disappears in the absence of a medium. They consequently consider radiation that a charged system can produce in vacuum as well as in a medium, where the presence of the surrounding medium either alters the intensity of the source or leads to radiation of specific waves which are not produced in a vacuum. The effects of absorption by the medium on the radiation is analyzed for both classical and quantum emitters. The absorbing media are assumed to be in thermodynamic equilibrium. Dipole, magnetic dipole, and quadrupole radiation is

ACC NR: AP6037087

considered. The results obtained are applied to a resonant medium consisting of identical two-level atoms scattered through a uniaxial crystal, with special attention paid to the phenomena in a ruby laser. The author thanks V. M. Galitskiy for discussions. Orig. art. has: 26 formulas.

SUB CODE: 20/ SUBM DATE: 14Jun66/ ORIG REF: 011/ OTH REF: 002

Card 2/2

GALITSKIY, V. M.; YAKIMETS, V. V.

Effect of quantum absorption on the bremsstrahlung of ultrarelativistic electrons. Zhur. eksp. i teor. fiz, 46 no. 3:1066-1073 Mr '64. (MIRA 17:5)

1. Institut yadernoy fiziki Sibirskogo otdeleniya AN SSSR.

YAKIMETS, V.V.

Bremsstrahlung of ultrarelativistic electrons in condensed amorphous bodies. Dokl. AN SSSR 159 no.4:782-785 D '64
(MIRA 18:1)

1. Predstavleno akademikom M.A. Lavrent'yevym.

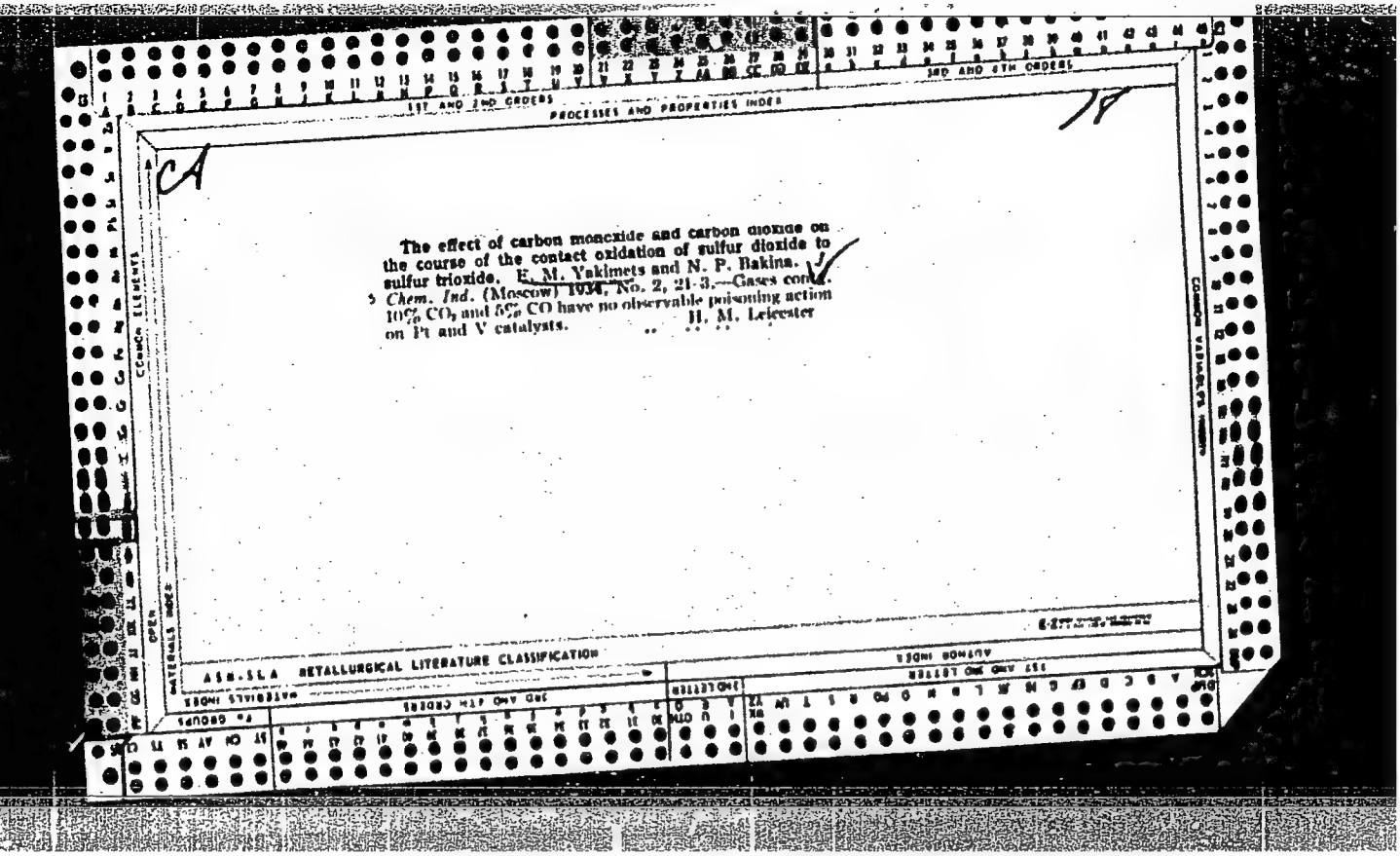
1ST AND 2ND GROUPS

PROCESSES AND PROPERTIES INDEX

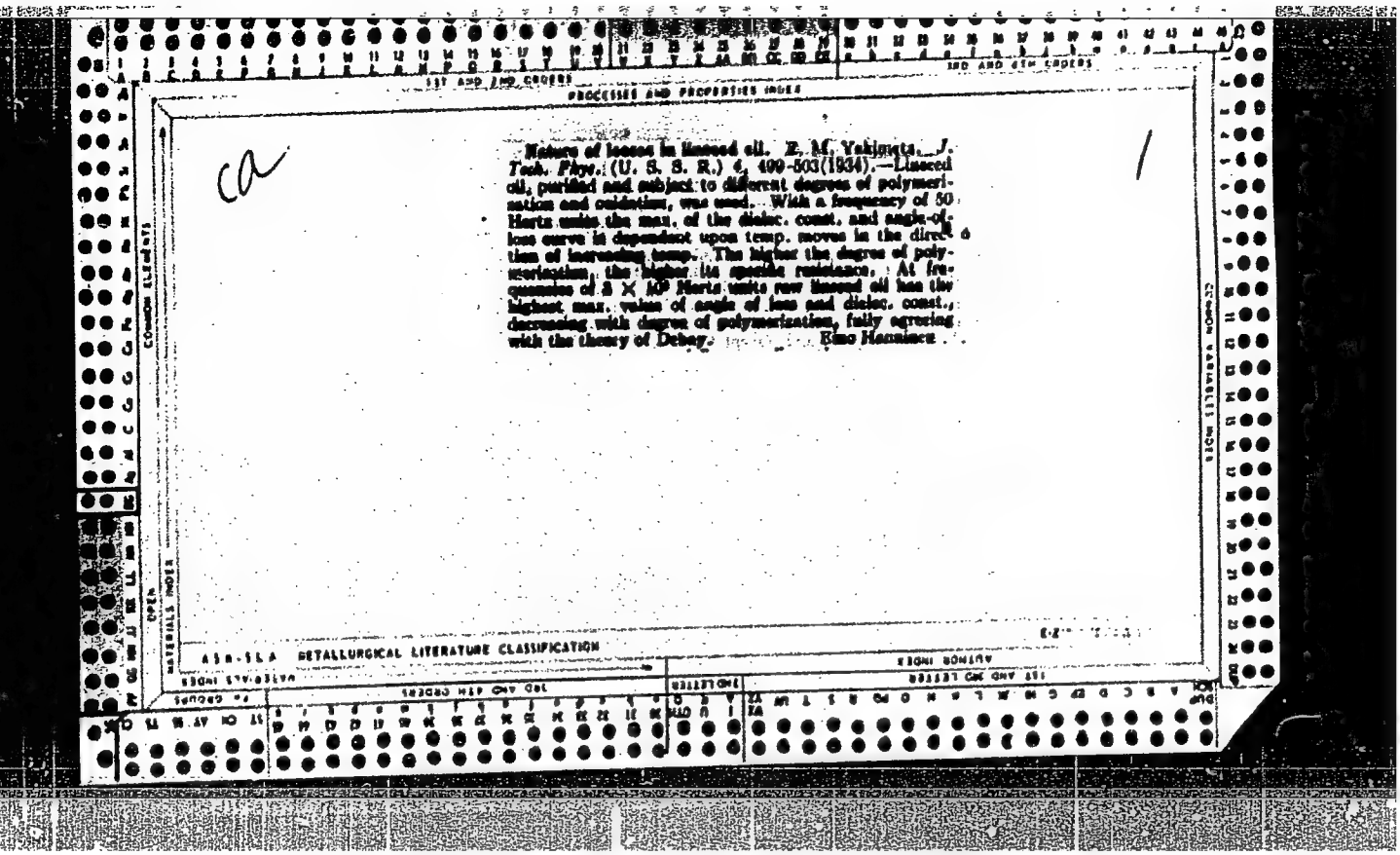
How to obtain sodium bisulfite in the solid state. N. N. EFREMOV AND B. M. YAKIMETZ. *J. Chem. Ind.* (Moscow) 7, 1224–33(1930).—With c. p. Na_2CO_3 in a dry state it was found that an excess of SO_2 gas brings about the oxidation of pyrosulfite and increases the sulfate content. A favorable concn. of gas was found to be 7–8% although a drop to 5% did not decrease the SO_2 content of the salt provided other conditions were right. The best temp. was one of the surrounding atm. (20–25°). An admixt. of Na_2CO_3 in the $NaHCO_3$ lowered the percentage of SO_2 in the pyrosulfite. Stirring the mixt. increased the percentage of SO_2; this is especially important at the start of the reaction. By using technical bicarbonate a high SO_2 content might be obtained by carrying out the reaction at 60–65°, or without heating, but with drying in a vacuum at 20–25°.

J. S. JOFFE

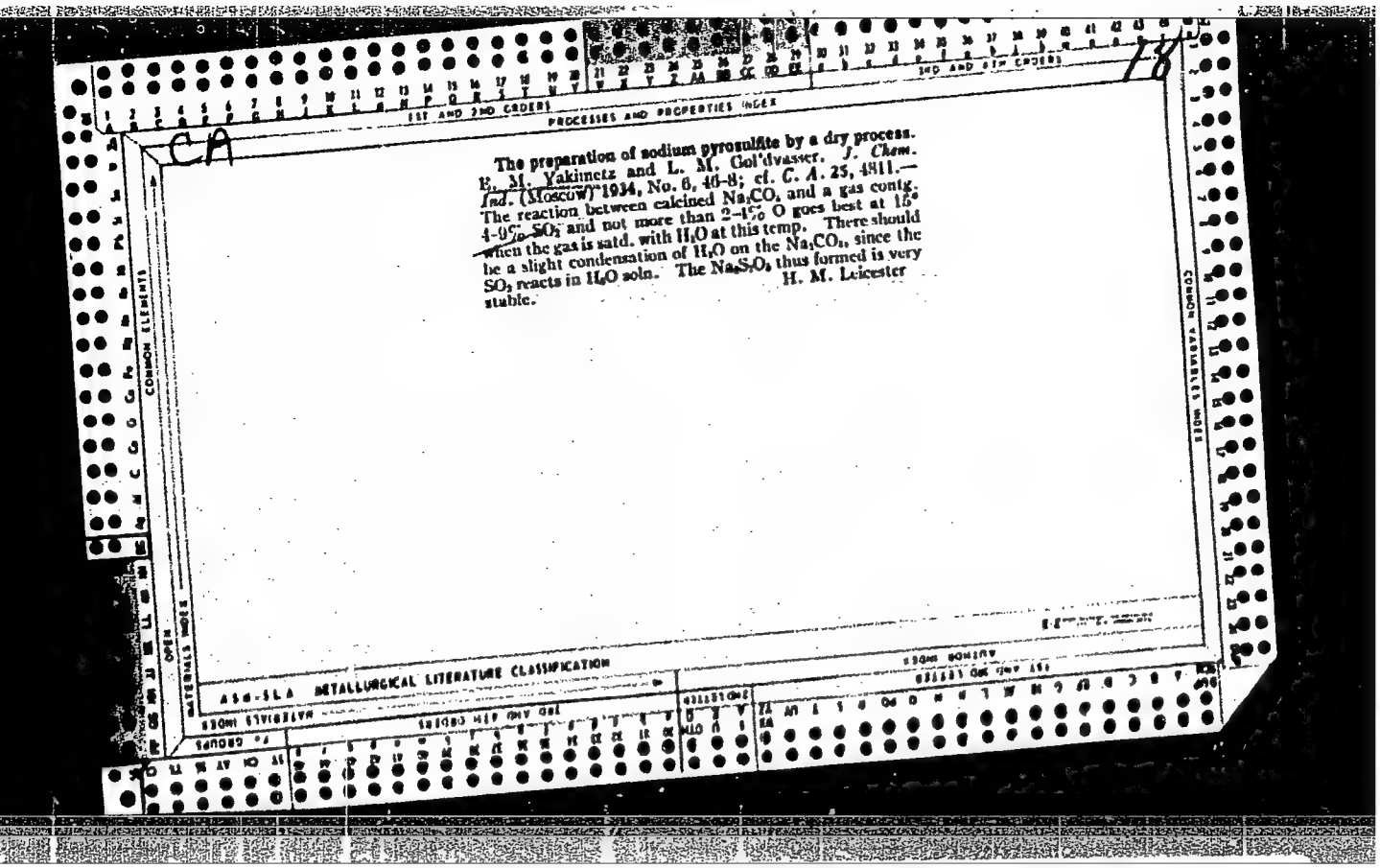
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



The effect of carbon monoxide and carbon dioxide on the course of the contact oxidation of sulfur dioxide to sulfur trioxide. E. M. Yakimets and N. P. Bakina. *Chem. Ind.* (Moscow) 1934, No. 2, 21-3.—Gases containing 10% CO_2 and 5% CO have no observable poisoning action on Pt and V catalysts. H. M. Leicester



Nature of losses in linseed oil. Z. M. Yakimets. *J. Tech. Phys.* (U. S. S. R.) 4, 499-503(1934).—Linseed oil, purified and subject to different degrees of polymerization and oxidation, was used. With a frequency of 50 Hertz units the max. of the dielec. const. and angle-of-loss curve is dependent upon temp. moves in the direction of increasing temp. The higher the degree of polymerization, the higher its specific resistance. At frequencies of 3×10^6 Hertz units raw linseed oil has the highest max. value of angle of loss and dielec. const., decreasing with degree of polymerization, fully agreeing with the theory of Debay. Elmo Hanninen



PROCESSES AND PROPERTIES INDEX

CA

18

The preparation of sodium pyrosulfite by a dry process. E. M. Yakimetz and L. M. Gol'dvasser. *J. Chem. Ind.* (Moscow) 1934, No. 6, 46-8; cf. *C. A.* 25, 4811.—The reaction between calcined Na_2CO_3 and a gas contg. 4-9% SO_2 and not more than 2-4% O goes best at 15° when the gas is satd. with H_2O at this temp. There should be a slight condensation of H_2O on the Na_2CO_3, since the SO_2 reacts in H_2O soln. The $Na_2S_2O_5$ thus formed is very stable. H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

YAKIMETS, Ezhi. [Jakimiec, J.]

Magnetohydrodynamic models of sunspots. Biul astr Cz 14 no.3:97-99 '63.

1. Astronomicheskiy institut Vrotslavskogo universiteta.

YAKIMETS, L.S. (Kiyev, 37, per. Donskoy, d.10)

Rare case of a repeated operation on the stomach. Klin.khir. no.9:79-80 S '62. (MIRA 16:5)

1. Khirurgicheskoye otdeleniye Karlovskoy rayonnoy bol'nitsy, Poltavskoy oblasti.

(STOMACH--SURGERY)

ACCESSION NR: AP4025939 S/0056/64/046/003/1066/1073

AUTHOR: Galitskiy, V. M.; Yakimets, V. V.

TITLE: Effect of quantum absorption on bremsstrahlung of ultrarelativistic electrons

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 46, no. 3, 1964, 1066-1073

TOPIC TAGS: quantum absorption, bremsstrahlung, classical electrodynamics, quantum electrodynamics, bremsstrahlung suppression, dielectric constant, electron poistron pair production

ABSTRACT: The article deals with frequencies much below the electron energy, making it possible to use a classical description of the electromagnetic field. A general method is developed to calculate the effect of the medium of the energy lost by fast particles passing through the medium. The method is used to determine the influence of absorption on the bremsstrahlung of ultrarelativistic electrons. It is shown that at high energies the bremsstrahlung is strongly suppressed in a certain frequency range. In the case of lead, for example, the

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ACCESSION NR: AP4025939

suppression takes place at $E >> 10^{14}$ eV in the frequency range $10^8 << \omega << 10^{-22} E^2$ eV. The effect of the medium on the electromagnetic field can therefore be taken into account phenomenologically by introducing a dielectric constant. The effect of density is calculated for differential losses of electron energy due to production of electron-positron pairs. "In conclusion the authors consider it their pleasant duty to thank I. I. Gurevich for interesting discussions." Orig. art. has: 3 figures and 44 formulas.

ASSOCIATION: Institut yadernoy fiziki Sibirskogo otdeleniya AN SSSR (Institute of Nuclear Physics, Siberian Department, AN SSSR)

SUBMITTED: 24Aug63 DATE ACQ: 16Apr64 ENCL: 01

SUB CODE: PH NR REF SOV: 006 OTHER: 002

Card 2/3

SAVINOVSKIY, D. A. : STYUNKEL', T. B. : YAKIMETS, YE. M.

Chemistry, Analytic

Complex metric method for determining small hardness. Izv. VTI 21, No. 2, 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS, LIBRARY OF CONGRESS, MAY 1952, UNCLASSIFIED.

YAKIMETS, Ye. M.

USSR/Chemistry - Water Analysis

Mar 52

"New Indicators," T. B. Styunkel', D. A. Savinovskiy, Engineers, Ye. M. Yakimets, Cand Tech Sci, Ural Polytech Inst imeni S. M. Kirov and Sverdlovenergo

"Iz v-s Teplotekh Inst" No 3, pp 22, 23

Presents characteristics of 3 indicators, giving color reactions with ions of Ca and Mg: acid chromogen black special YeT-00 ($C_{20}H_{13}O_7N_3S$), acid chrome blue K ($C_{16}H_9O_{12}N_2S_3Na_3$) and acid chrome dark blue ($C_{16}H_{10}O_9N_2S_2Na$). Discusses use of these indicators for detn of water hardness.

216T5

YAKIMETS, M. E.

AID - P-78

Subject	:	USSR/Engineering
Card	:	1/1
Authors	:	Styunkel', T. B., Eng., Savinovskiy, D. A., Eng., and Yakimets, M. E., Kand. of Eng. Sci., Sverdlovsk
Title	:	New Water Hardness Indicators (Advice to Industrial Laboratories)
Periodical	:	Izv. V.T.I., v. 21, #3, 22-23, Mr 1952
Abstract	:	Determination of water hardness by the complexometric method is discussed. Compounds giving colored reaction to eriochromium black T are recommended for use. 3 tables, 2 Russian references (1951-52).
Institution	:	Urals Polytechnic. Inst. im. Kirov. Sverdlovsk Power Plant.
Submitted	:	November 21, 1951

SAVINOVSKIY, D. A., STYUNKEL', T. B., YAKIMETS, YE. M., ENGS.

Water - Analysis

Overall measuring method for determining the hardness of water. Elek. sta. 23 No. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

YAKIMETS, Ye. M.

Analytical Abst.
Vol. 1 No. 1
Jan. 1954
Biochemistry

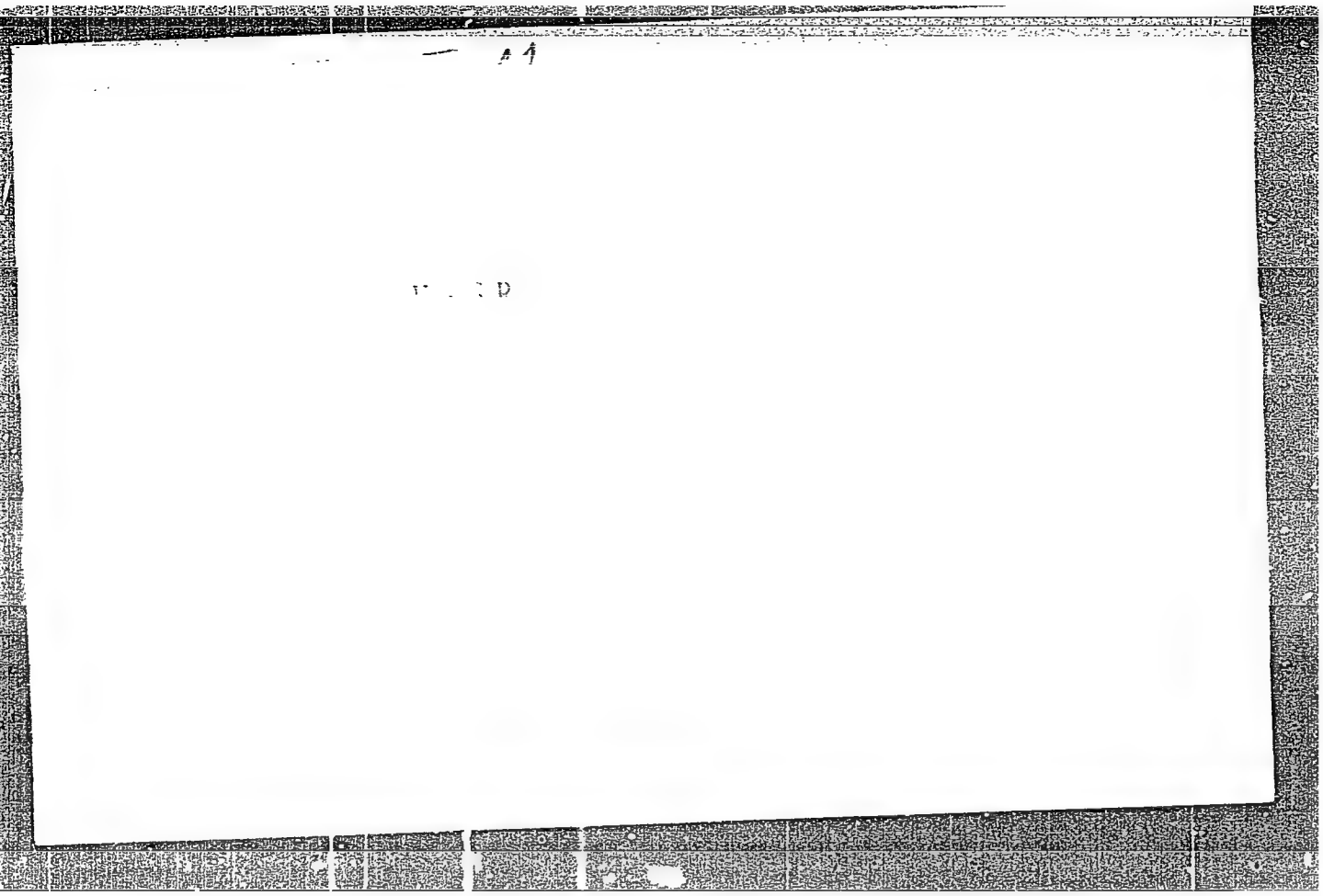
(3) Chem

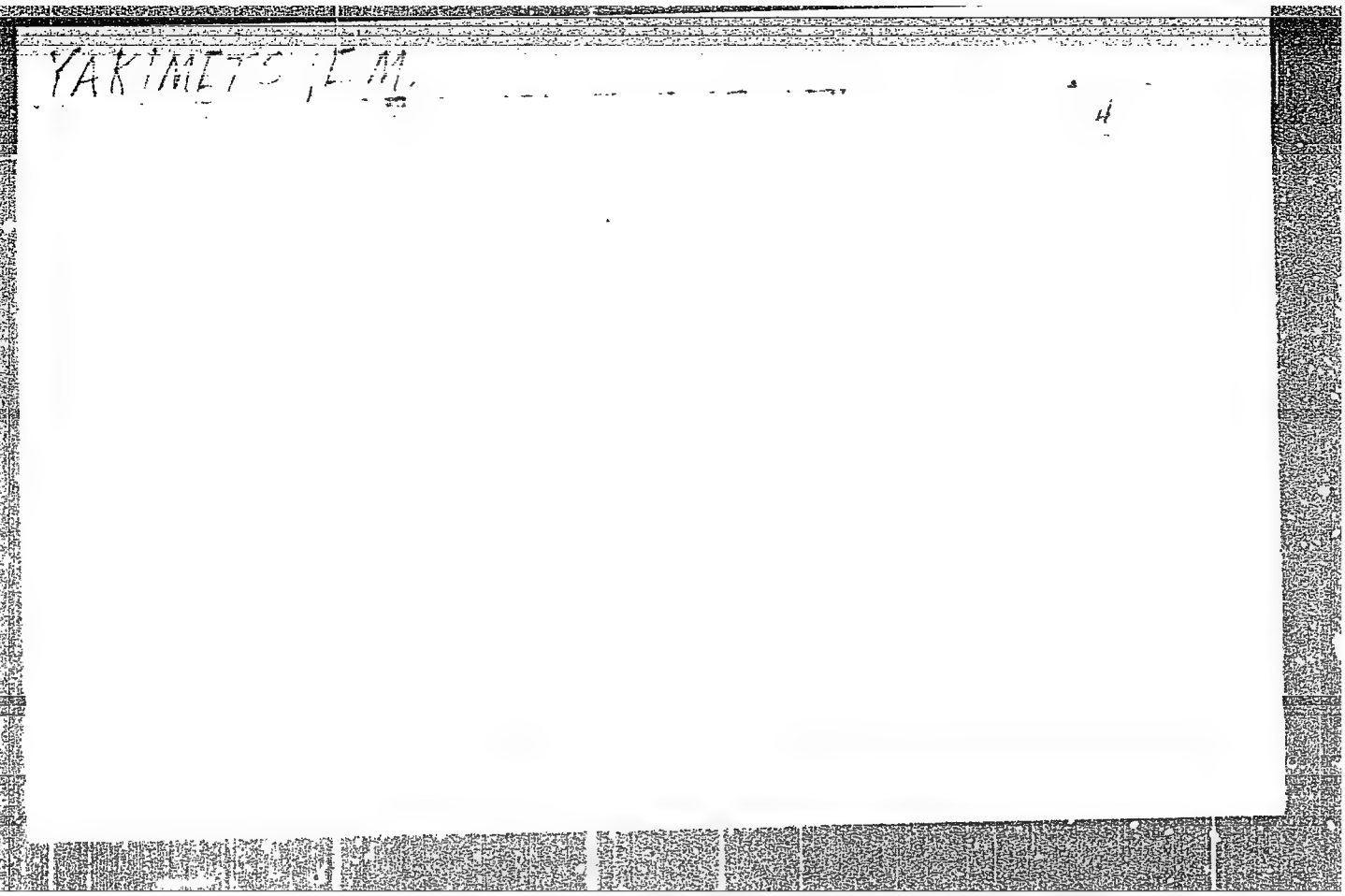
156. Behaviour of certain cations in the complexone method of determining hardness of water. T. B. Styunkel, E. M. Yakimets and D. A. Savinovsky (*J. Anal. Chem., U.S.S.R.*, 1953, 8, 163–167).— The behaviour of Ca, Mg, Zn, Mn, Cu, Al, and Fe towards Trilon B in presence of various indicators is discussed and methods of avoiding the effects of interfering ions in the determination of water hardness are described. G. S. Smith

Ural Polytech Inst. im S. M. Kirov

SAVINOVSKIY, D.A., inzhener; STYUNKEL', T.B., kandidat tekhnicheskikh nauk; YAKIMETS, Ye.M., kandidat tekhnicheskikh nauk.

Overall measuring method for determining the hardness of water. Elek.sta. 24 no.7:50 Jl '53. (MLRA 6:7)
(Water--Analysis)





YAKIMETS, Ye. M.

AID P - 1827

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 4/16

Author : Yakimets, Ye. M., Kand. of Tech. Sci.

Title : Trilonometry as a new method of chemical control of the feed water of steam power stations

Periodical : Teploenergetika, 3, 18-21, Mr 1955

Abstract : The author examines the theoretical bases for the determination of various cations by the method of visual trilonometric titration. He presents experimental data of analysis using Trilon B which confirm the possibility of applying trilonometric definitions in the analysis of waters and sediments. Seven tables, 13 references (1946-1954).

Institution: Ural Polytechnical Institute

Submitted : No date

Yakimets, E. M.

2

865. **Use of EDTA for determining iron in natural waters.** A. A. Bashkurova and E. M. Yakimets (S. M. Kirov Ural Polytech. Inst.). *Zavod. Lab.*, 1955, **21** (5), 533–535.—Three 100-ml portions of the water are taken. The acidity or alkalinity is determined in the first sample and the other two are neutralised accordingly with 0·1 *N* acid or alkali. To these are added 4 ml of *N* H_2SO_4 and the Fe is oxidised in the boiling solution by addition of $KMnO_4$ or $K_2S_2O_8$. With contents of Fe > 1 mg per litre the solution is cooled to 50° C and with lower contents to 60° C. Five ml of 40 per cent. NH_4SCN solution are added and the solution is titrated with 0·1 *N* EDTA (disodium salt) until the red colour of $Fe(SCN)_3$ disappears; towards the end of the titration the titrant is added slowly, in drops. With large amounts of Fe the end-point is difficult to see. One portion is therefore over-titrated and is used as a reference for the titration of the second.

G. S. Smith

Determination of sulfate by the Trilon B method. T. B. Styunks and E. M. Yakimets. *Zavodskaya Lab.* 22, 851-6 ... the ... at the end point ... by titration ... 45 ...

... fortuitous ... expository work ... was not ...

Yakimets, Ye. M.

USSR/Analysis of Inorganic Substances G-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19623

Author : Ye. M. Yakimets, N. V. Shabanova
Inst : Uralsk Polytechnical Institute
Title : Determination of Oxygen Dissolved in Water in Presence of Nitrites.

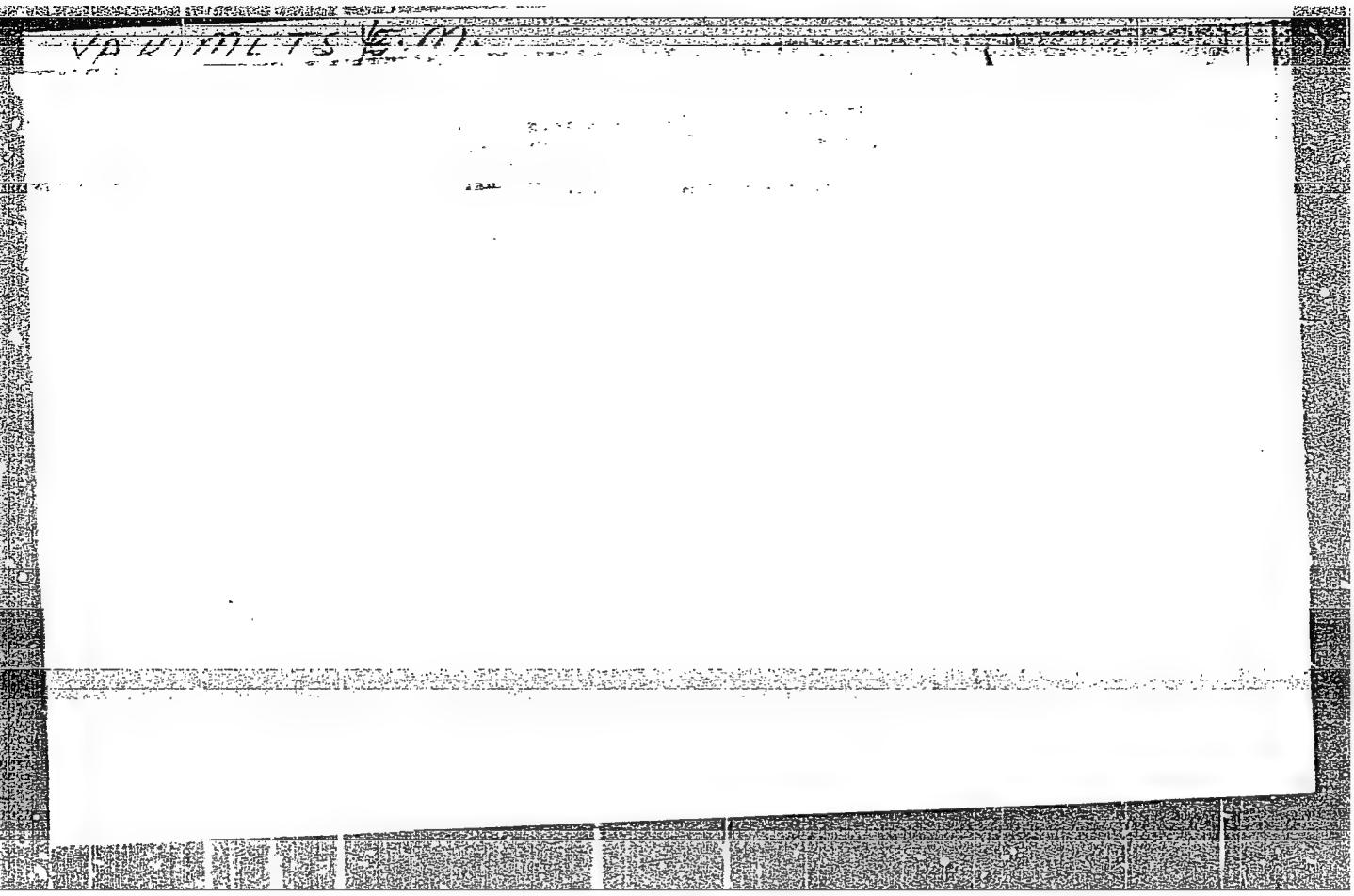
Orig Pub: Tr. Ural'skogo Politekhn. In-ta, 1956, sb. 57, 79 - 84.

Abstract: The conditions of preparing sulfamine acid (I) and its disintegrating action on NO_2^- were studied, and the method of prepation of I based on the interaction of $CO(NH_2)_2$ and the fumic sulfuric acid was described. It was found that the treatment of I did not interfere with the determination

Card 1/2 - 104 -

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19623

of O_2; I should be added before the introduction of the KI solution, 1 ml of a solution of mixed $MnSO_4$ and I (55 g of $MnSO_4..5H_2O$ and 10 g of crystalline I are dissolved in 100 ml of water) is added to the sample of the analysed water and 0.5 to 1 min later 1 ml of alkaline solution of KI (20 g of KI and 36 g of NaOH dissolved in 100 ml of water) and, after stirring, 3 ml of diluted H_3PO_4 or H_2SO_4 (1:1) are added. The liberated I_2 is titrated off with 0.01 n. $Na_2S_2O_3$ solution. The described method has been applied to the determination of O_2 and excessive SO_2 in NO_2^- containing water at a Ural thermal power station these two years.



YAKIMETS, Ye M

RAD'KO, V.A., kandidat tekhnicheskikh nauk; YAKIMETS, Ye.M., inzhener.

Titrating solutions of potassium permanganate. Elek. sta. 28 no.6: 78 Je '57. (MLRA 10:8)
(Titrimeters) (Potassium permanganate)

YAKIMETS, Ye. M.

USSR /Chemical Technology. Chemical Products and Their Application

I-14

Water treatment. Sewage water.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31704

Author : Yakimets Ye. M., Bashkirtseva A.A.

Inst : Urals Polytechnic Institute

Title : Trilonometric Determination of Iron

Orig Pub: Tr. Ural'skogo politekhn. in-ta, 1956, No 57, 93-105

Abstract: Study of trilonometric determination of Fe^{3+} using the indicators tiron (I) and NH_4CNS (II). With I good results are obtained at pH 5.0-5.2 in the absence of Cu^{2+}, Zn^{2+}, Mn^{2+} and Al^{3+}. To obviate the detrimental effect of these, it is

Card 1/2

USSR /Chemical Technology. Chemical Products and Their Application I-14

Water treatment. Sewage water.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31704

recommended to carry out the titration at pH 1.7-2.0 in the presence of II. Increase of temperature during titration increases velocity of the reaction, thereby promoting better defined results, but at the same time greater extent of hydrolysis lowers the sensitivity. The following temperature optimum is recommended: with concentrations of Fe^{3+} below 1 mg/liter, 55-60°, at higher concentrations 45-50°. Trilonometric titration permits determination of Fe^{3+} at concentrations of 0.05-250 mg/liter.

Card 2/2

STYUNKEL', T.B., kand.khim.nauk; YAKIMETS, Ye.M., kand.tekhn.nauk.

New method of determining calcium and magnesium hardness of water. Elek.sta.28 no.8:10-11 Ag '57. (MIRA 10:10)
(Titration)

YAKIMETS, Ye.M.

USSR / Analytical Chemistry. E-2
Analysis of Inorganic Substances.

Abs Jour: Ref. Zhur - Khimiya, No. 2, 1958, 4339

Author : A.A. Bushkirtseva, E.M. Yakimets

Inst : Ural Polytechnical Institute

Title : Trilonometric Method For the Determination of Aluminum and Iron in Various Materials Present in Aluminum Factories.

Orig Pub: Tr. Uralskogo Politechn. in-ta, 1957, sb. 58, 76-87

Abstract: In the determination of aluminum Al^{3+} an excess of the titrated complexone III (1) solution is added and heated to 70°-80°C. Hot water (100 ml.) is added, and the solution is neutralized. To this, 10 ml. of an acetic buffer solution of

Card 1/3

USSR / Analytical Chemistry. E-2
Analysis of Inorganic Substances.

Abs Jour: Ref. Zhur - Khimiya, No. 2, 1958, 4339

pH 6.0 and 1 ml. of a 0.20% aqueous solution of hematoxylin is added and allowed to stand for 2-3 minutes after which the excess of (1) is back titrated with a 0.025M solution of an Al^{3+} salt. In the determination of Al^{3+}, Fe^{3+}, Fe^{2+}, Cu^{2+}, Ti^{4+}, Fe, Zn^{2+} and Mn^{2+} interfere; Na^{+}, K^{+}, Cl^{-}, SO_4^{2-}, NO_3^{-}, CH_3COO^{-} do not interfere. In the determination of Al in the aluminate solutions (in the absence of the interfering ions) the hot solution to be analyzed is neutralized to the phenolphtalein end point with a 2N CH_3COOH solution. The Fe determination is performed (after oxidation to Fe^{3+}) by direct titration of the hot (pH 1-2) solution of (1) in the presence of SCN^{-} or Na sulfosalicylate. In the

Card 2/3

USSR / Analytical Chemistry. E-2
Analysis of Inorganic Substances.

Abs Jour: Ref. Zhur - Khimiya, No. 2, 1958, 4339

determination of Fe- Cu^{2+}, Zn^{2+}, Ni^{2+}, Co^{3+}, Cr^{3+}, and > 10.00 mg. of Al interfere. The method is applicable for the determination of Al and Fe in the materials found in aluminum factories.

Card 3/3

YAKIMETS, Ye. M.

AUTHORS: Styunkel', T.B., Yakimets, Ye.M. 32-1-8/55

TITLE: Acid Chrome-Dark Blue and Chrome-Blue K as Indicators in the "Trilonometrical" Determination of Calcium (Kislotnyy chromtemnosiniy i kislotnyy chromsiniy K kak indikatory pri trilonometricheskom opredelenii kal'tsiya).

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 1, pp. 23-25 (USSR)

ABSTRACT: In this paper the suggestion is made that, for the determination of calcium and magnesium, the acid chrome-dark-blue and chrome-blue K be used instead of ammonium purpurate, and that this be done with a sample at pH values between 9 and 13. For the determination of calcium in the presence of magnesium, 10 mg-equiv. sodium hydroxide is introduced into the solution. Magnesium is precipitated, and at the same time the hydrogen ions formed are neutralized. If, after titration of the calcium, 10 mg-equiv. hydrochloric acid is added to the solution, the magnesium hydroxide is dissolved and the remaining lye remains neutralized. A surplus of acid remains in the solution, which is due to a complex compound of the calcium with trilon. If the acid is added to the indicator, the characteristic color of the latter will be bright pink. 5 ml of ammonia buffer solution is then added (pH≈10), after which the magnesium,

Card 1/2

(which has gone over into the solution) can be titrated with trilon. In the case of a higher magnesium content in the solution the magnesium hydroxide can absorb part of the calcium, which exercises a detrimental effect upon the result of the titration. In order to avoid this, sugar is added to the solution. This causes the well-soluble calcium saccharate to be formed, and titration of also small quantities of calcium can be carried out satisfactorily. (An example of the process of analysis is mentioned and two tables showing results are given). There are 2 tables and 5 references, 4 of which are Slavic.

ASSOCIATION: Ural Polytechnic Institute imeni S. M. Kirov (Ural'skiy politekhnicheskiy institut im. S.M. Kirova).

AVAILABLE: Library of Congress

Card 2/2 1. Calcium-Determination 2. Titration

SOV/96-59-8-2/27

AUTHORS: Babkin, R.L., Engineer, Yakimets, Ye.M., Candidate of Technical Sciences

TITLE: Methods of Determining Small Quantities of Oxygen Dissolved in Water

PERIODICAL: Teploenergetika 1959, Nr 8, pp 6-9 (USSR)

ABSTRACT: This article is a general review of methods of determining small quantities of oxygen in water, with particular reference to publications in the English and German languages. Iodometric methods are first discussed, and development has followed the lines of refining Winkler's method by improving the sampling procedure and the methods of introducing reagents as well as devising ways of avoiding the influence of other ions. Many of the improvements to Winkler's method are concerned with determination of the endpoint, and reference is made to the development of electrometric methods. However, the various methods of avoiding error in the determination of the iodine formed do not reduce the errors that result from iodine formation

Card 1/3

Methods of Determining Small Quantities of Oxygen Dissolved in Water

in quantities not equivalent to the oxygen content. The many corrections, and the difficulty of excluding various factors that influence the accuracy at very low concentrations, render the Winkler method unsuitable for the determination of oxygen in the feed water of modern steam boilers. In recent years, a great deal of work has been published on electro-chemical methods which do not involve the introduction of reagents into the samples. In most of these methods one of two electrodes is depolarised by the oxygen dissolved in the water, establishing a potential difference proportional to the oxygen concentration. These methods are sub-divided into those in which an external voltage is applied to the electrodes and those in which the voltage is developed as a result of differences between the electrodes. A general review of the two types of method is given. Difficulties in the use of electro-chemical methods have been pointed out in Germany. The basic apparatus is expensive and requires a good deal of auxiliary equipment to ensure that various factors are stabilised. The authors have studied instruments based on the principle of the galvanic cell with electrodes of different materials, and

Methods of Determining Small Quantities of Oxygen Dissolved in Water

whilst satisfactory results were obtained with relatively high oxygen and salt concentrations, good repeatability has not yet been obtained in determining oxygen in condensate at concentrations of up to 0.05 mg O_2/litre. A good deal of work has been done on the indigo-carmine method first developed in 1925 by Efimov. Recent developments in this method are referred to and its advantages are explained. At present it is the method most commonly used in Soviet Power Stations to determine oxygen content. If colorimetric methods are used to determine the oxygen, the presence of materials that make the oxidation products red will substantially impair with the sensitivity of the method. In this respect not all of the indigo-carmine produced by different Soviet factories is equally satisfactory. There are 36 references, 10 of which are Soviet, 14 English, 11 German and 1 French.

ASSOCIATIONS: Vostochnyy filial VTI i Ural'skiy Politekhnicheskiy Institut (The Eastern Branch of the All-Union Thermo-Technical Institute and The Ural Polytechnical Institute)

5(2)

AUTHORS: Bashkirtseva, A. A., Yakimets, Ye. M. SOV/32-25-5-3/56

TITLE: On the Trilonometric Iron Determination
(O trilonometricheskom opredelenii zheleza)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 5, pp 540-542 (USSR)

ABSTRACT: The deficiencies ascribed to the trilonometric iron determination are apparently to be explained by an incorrect choice of the pH, of temperature, of an insufficient indicator amount and an unclear determination range. The volumetric trilonometric iron determination in the presence of ammonium thiocyanate (I) and sulfosalicylic acid (II) had been already earlier investigated (Ref 2). This determination is possible with a content of from 0.1 to 100 mg Fe^{3+} in 100 ml sample, in which case (I) is used with 0.1 - 1 mg Fe^{3+} and (II) with 1 - 100 mg Fe^{3+}. The complex ions formed by Fe^{3+} with Trilon (T) are so stable that the iron determination may take place with low pH values, which are not sufficient for other cations to react with (T) (Table1).

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On the Trilonometric Iron Determination SOV/32-25-5-3/56

In the case of the pH recommended (1 - 1.4) Fe^{3+} titration with (T) must be carried out at a temperature of 60 - 70°. The complex iron ion (salt of ethylene diamine tetraacetic acid) exhibits a strong lemon-yellow coloring after the appearance of which the equivalence point in titration may be estimated. An analytical method for the iron determination on this basis is mentioned and the results of some analyses of this type on various materials are given (Tables 2, 3). In this way, different materials can be analyzed without first having to carry out a reduction to Fe^{2+}. The determination may take place in the presence of Zn, Al, Mn, of alkaline- and alkaline earth metals, Cl^-, NO_3^- and SO_4^{2-}. There are 3 tables and 7 references, 5 of which are Soviet.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova (Ural Polytechnic Institute imeni S. M. Kirov)

Card 2/2

5 (2)

05715

AUTHORS: Bashkirtseva, A. A. Yakimets, Ye. M. SOV/32-25-10-4/63

TITLE: Trilonometric Determination of Aluminum

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 10, pp 1166-1168 (USSR)

ABSTRACT: Direct titration of aluminum with trilon cannot be carried out. Retitration of the excess trilon can be done at different pH values. The suggestion made by Přibil et al (Ref 10) to carry out the retitration by means of a zinc salt solution at pH = 10 is impracticable since, under these conditions, the zinc trilonate is stabler than the aluminum trilonate, and the zinc ions decompose the aluminum trilonate. According to Taylor's (Ref 12) suggestion, the hot trilon solution should be titrated with the aluminum solution at pH = 6; for this purpose, the titration solution should be carefully rid of nearly all cations. In the present case, the titration of the excess trilon solution is suggested by means of a ferric salt solution in the presence of sodium sulphosalicylate. The influence of some ions (Table 1) on titration shows that pH = 4.8 is most favorable. If aluminum and iron are simultaneously present in the sample, a successive

Card 1/2

05715

Trilonometric Determination of Aluminum SOV/32-25-10-4/63

trilonometric titration must be carried out at different pH-values (pH = 1.0 for iron, and pH = 4.8-6 for aluminum). A course of analysis, as well as analytical results obtained for various samples (Table 2, ash of Bogoslovsk- and Irtysh coal, fire clay Nr 55 etc), are indicated. There are 2 tables and 13 references, 4 of which are Soviet.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova (Ural Polytechnic Institute imeni S. M. Kirov)

Card 2/2

BASHKIRTSEVA, A.A.; YAKIMETS, Ye.M.

Potassium (ammonium) thiocyanate as an indicator in the EDTA analysis of iron. Trudy Ural. politekh. inst. no.94:110-116 '60. (MIRA 15:6)

(Acetic acid) (Iron--Analysis)

BASHKIRTSEVA, A.A.; YAKIMETS, Ye.M.

Sulfosalicyclic acid as an indicator in the EDTA analysis of iron. Trudy Ural. politekh. inst. no.94:117-121 '60.
(MIRA 15:6)

(Acetic acid) (Iron--Analysis)

RAD'KO, V.A.; YAKIMETS, Ye.M.

Trilonometric determination of manganese in the systems $Mn^{2+} - Fe^{3+}$ and $Mn^{2+} - Al^{3+}$. Trudy Ural.politekh.inst. no.96:166-175 '60. (MIRA 14:3)

(Manganese—Analysis) (Systems (Chemistry))

RAD'KO, V.A.; YAKIMETS, YE.M.

Trilonometric determination of calcium, magnesium, and manganese present simultaneously. Trudy Ural.politekh.inst. no.96:176-181 '60. (MIRA 14:3)

(Calcium--Analysis) (Magnesium--Analysis) (Manganese--Analysis)

RAD'KO, V.A.; YAKIMETS, Ye.M.

Determination of iron, aluminum, and manganese in metallurgical slags by the use of trilon. Zav. lab. 27 no. 12:1464-1465 '61. (MIRA 15:1)

1. Ural'skiy politekhnicheskiy institut im. S.M. Kirova.
(Iron—Analysis) (Aluminum—Analysis)
(Manganese—Analysis)

RAD'KO, V.A.; YAKIMETS, Ye.M.

Preparation and properties of the sodium salt of manganese (II) ethylenediaminetetraacetic acid. Zhur.neorg.khim. 7 no.3:683-686 Mr '62. (MIRA 15:3)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova.
(Acetic acid) (Manganese compounds)

KUSAKINA, N.P.; YAKIMETS, Ye.M.

Trilonometric method of analysis of lead vanadate. Trudy Ural.politekh. inst.no.121:91-94 '62. (MIRA 16:5)

(Lead vanadates) (Acetic acid)

YAKIMETS, Ye.M.; TANANAYEVA, A.N.; SHABASHOVA, N.V.

Rapid trilonometric determination of zinc in copper-containing materials. Trudy Ural.politekh.inst. no.130:58-61 '63. (MIRA 17:10)

RAD'KO, V.A.; YAKIMETS, Ye.M.

Preparing a complex of Mn (III) with ethylenediaminetetraacetic acid and its use in colorimetric analysis. Trudy Ural. politekh. inst. no.130:62-69 '63. (MIRA 17:10)

KUSAKINA, N.F.; YAKIMETS, Ye.M.

Interaction of tetravalent cerium with tellurium B. Trudy Ural. politekh.inst. no.130:77-82 '63. (MIRA 17:10)

NIKITIN, V.D.; YAKIMETS, Ye.M.; TIMAKOVA, N.A.; RAL'KO, V.A.; SHABASHOVA, N.V.; TRIBUNSKIY, V.V.

Preparing chelate compounds of ethlenediaminetetraacetic acid with the cations of certain metals and methods of their analysis. Trudy Ural.politekh.inst. no.130:94-103 '63. (MIRA 17:10)

PETROVA, L.V., inzh.; SHKLYAR, R.S., kand. tekhn. nauk; YAKIMETS, Ye.M., kand. tekhn. nauk

X-ray study of the structure of the composition of boiler incrustations, sludges, and deposits. Teploenergetika 11 no.10:34-36 O '64. (MIRA 18:3)

1. Ural'skiy politekhnicheskiy institut im. Kirova.

KUSAKINA, N.P.; YAKIMETS, Ye.M.

Preparation and properties of the sodium salt of Ce (III) ethylenediaminotetraacetate. Zhur.neorg.khim. 10 no.4:1010-1012 Ap '65. (MIRA 18:6)

KUSAKINA, N.P.; YAKIMETS, Ye.M.

Preparation and properties of hydrogen aquaethylenediaminotetraacetatoceriate (III). Zhur.neorg.khim. 10 no.4:1013-1014 Ap '65. (MIRA 18:6)

RAD'KO, V.A.; YAKIMETS, Ye.M.; VLADIMIRTSEV, I.F.

Indicators for the complexometric determination of manganese.
Zhur. anal. khim. 20 no.9:955-959 '65. (MIRA 18:9)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova, Sverdlovsk.

PETROVA, L.V., inzh.; YAKIMETS, Ye.M., kand.tekhn.nauk

Thermal stability of the chelate compounds of ehtylenediaminetetraacetic acid with cations of some metals. Teploenergetika 12 no.10:23-25 O '65. (MIRA 18:10)

1. Ural'skiy politekhnicheskiy institut.

YAKIMIDI, A.I.; SMOLKIN, E.A.

Favorable course of a bilateral gigantic nephrolithiasis of 30 years' duration. Urologiia 29 no.3:51 My-Je '64.
(MIRA 18:10)

1. Urologicheskoye otdeleniye (zav.- A.I. Yakimidi) Yuzhno-Kazakhstanskoy oblastnoy bol'nitsy, Chimkent.

YAKIMIDI, A.I.

Spontaneous rupture of the renal pelvis with expulsion of calculi into the perirenal tissue; secondary renal atrophy. Urologiia no.4: 50 O-D '55. (MLRA 9:12)

1. Iz khirurgicheskogo otdeleniya (zav. F.Ya.Shestialtynov) oblastnoy Chimkentskoy bol'nitsy.

(KIDNEYS, calculi,
causing rupt. of kidney pelvis with expulsion of calculi into perirenal tissue & secondary renal atrophy)
(CALCULI,
kidneys, causing rupt. of kidney pelvis with expulsion of calculi into perirenal tissue & secordary renal atrophy)
(KIDNEY PELVIS, repture,
in nephrolithiasis, with expulsion of calculi into perirenal tissue & renal atrophy)

YAKIMIDI, A.I.

Unusual location of an ascaris in the bladder. Urologiia 22 no.2:53 Mr-Ap '57. (MLRA 10:7)

1. Iz gorodskoy poliklinikl 1-go medob"yedineniya v Chimkente (glavnyy vrach I.I.Buchatskiy).
(BLADDER--DISEASES) (ASCARIDS AND ASCARIASIS)

YAKIMIDI, A.I.

Bladder stone in a patient with chronic saturnism. Urologiia 25 no.1:65-66 Ja-F '60. (MIRA 15:6)

1. Iz khirurgicheskogo otdeleniya (zav. - kand.med.nauk N.F. Khokhlov) 1-go meditsinskogo ob"yedineniya Chimkenta.
(CALCULI, URINARY) (LEAD-POISONING)

YAKIMIDI, A.I.

Echinococcosis of the prostate. Urologiia no.6:59-60 N-D '63. (MIRA 17:9)

1. Iz urologicheskoy otdeleniya (zav. A.I. Yakimidi) Chimkentskoy oblastnoy bol'nitsy.

S/125/60/000/011/016/016
A161/A133

AUTHORS: Rozenberg, O.O., Asnis, A.Ye., Yakimishin, G.S.

TITLE: Electroslag welding to repair locomotive frames

PERIODICAL: Avtomaticheskaya svarka, no. 11, 1960, 86-88

TEXT: The described techniques have been used for two years at the Izyumskiy parovozoremontnyy zavod (Izyum Locomotive Repair Plant), and the welds produced by the electroslag process are more dependable than those of manual welding. The method has been developed by Institut elektrosvarki im.Ye.O.Patona AN USSR (Electric Welding Institute im.Ye.O.Paton AS UkrSSR) and is used for the repair of beam frames 125 mm thick of the "ФД" ("FD") locomotive. The frame parts are fixed after oxygen cutting with a 30-34 mm gap, red copper linings with 4-5 mm walls, cooled by running water, are placed on both sides of the frame, and copper pipes are inserted into bolt holes which might be near the joint to prevent them from being welded. A plate ("pocket") with a 50-60 mm deep cut is welded to the bottom side of the frame beams, and rising

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Electroslag welding to repair locomotive frames

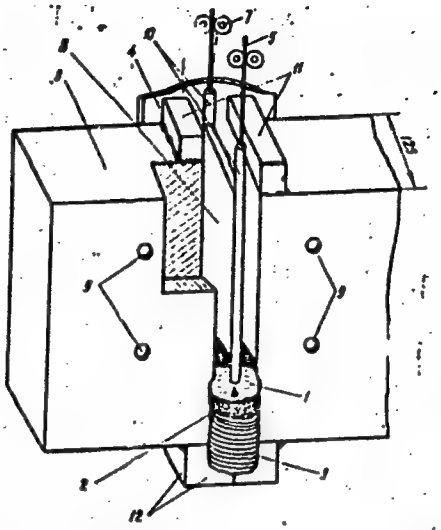
plates 80-100 mm high are installed on the top (the plates and the "pocket" are removed by oxygen cutter after welding). The welding equipment consists of the feed mechanism of a ПШ-5 (PSh-5) or ПШ-54 (PSh-54) semi-automatic welder, and a ТШС-1000-3 (TShS-1000-3) or a ТСД-1000-3 (TSD-1000-3) welding transformer modified for operation with rigid external characteristic. The "consumable nozzle" is a plate of Ст.3 (St.3) steel 90 mm wide and 12-15 mm thick with a steel pipe of 5-6 mm internal diameter and 2-3 mm wall attached to the edges on both sides. The pipes are designed for guiding the 3 mm electrode wire. The wire is a standard Св-10Г2 (Sv-10G2) grade (GOST 2246-60 standard); the flux АН-8 (AN-8). Wire feed speed is 78 m/h; the welding current has 1,200-1,400 amp and 40-44 volts. The mechanical properties of the weld metal are practically the same as of the base metal. Electroslag welding takes only a third of the time than manual repair welding. There is 1 figure.

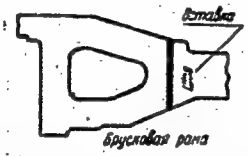
S/125/60/000/011/016/016
A161/A133

Electroslag welding to repair locomotive frames

Figure:

Schematic diagram of electroslag welding by consumable nozzle:
1 - Slag pool; 2 - Metal pool; 3 - Welding seam; 4 - Copper lining; 5 - Welding wire; 6 - "Consumable nozzle"; 7 - Feed rollers; 8 - Frame plates; 9 - Bolt holes in the frame; 10 - Wire guide pipes; 11 - Rising plates; 12 - "Pocket"





insert

frame

Card 3/3

LEBEDEV, B.F.; YAKIMISHIN, G.A.; ALEKSEYEV, A.I.

Automatic welding of the cylindrical part of an air preheater shell. Avtom. svar. 13 no. 10:52-58 O '60. (MIRA 13:10)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O.Patona AN USSR (for Lebedev, Yakimishin). 2. Trest "Uralstal'konstruktsiya" (for Alekseyev).
(Air preheaters--Welding)

ALEKSEYEV, A.I.; LEBEDEV, B.F.; YAKIMISHIN, G.S.; MELEKHIN, A.D.

Mechanizing welding operations in erecting the frame of the ore dressing plant of the Kachkanar Mining and Ore Dressing Combine. Avtom. svar. 16 no.1:60-67 Ja '63. (MIRA 16:2)

1. Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR (for Lebedev, Yakimishin, Melekhin).
(Kachkanar region—Structural frames—Welding)

MELIK-TANGIYEV, Z.I.; YAKIMISHIN, G.S.; LEBEDEV, B.F.; KHOLOLEYEV, A.M.; SAPRYKIN, Yu.I.

E Electric welding of span structures for oil field piers. Avtom. svar. 17 no.8:73-78 Ag '64. (MIRA 17:11)

1. Trest "Azmorneftestroy" (for Melik-Tangiyev). 2. Institut elektrosvarki im. Ye.O. Patona AN UkrSSR (for all except Melik-Tangiyev).

YAKIMKIN, N.A.; SHESTOPALOVA, I.M.

Studying ceramic properties of montmorillonites from some deposits of Lvov Province and Transcarpathia, the Ukrainina S.S.R. Bent. gliny Ukr. no.1:104-110 '55. (MIRA 12:12)

1.L'vovskiy filial TSentral'nogo nauchno-issledovat'skogo instituta stroymaterialov Ministerstva promyshlennosti stroitel'nykh materialov.
(Lvov Province--Montmorillonite)
(Transcarpathia--Montmorillonite)

YUSHKEVICH-GAVERDOVSKAYA, M.V., DAVROVSKIY, K.P., MIKHNOVSKAYA, A.A., ZINOV'YEVA, Z.M., YAKIMOCHKINA, V.I.

"Contact Transformations of Hexene and Cyclohexene Over an Aluminosilicate Catalyst"
Vestnik Moskovskogo Universiteta, no. 11, 1948

YAKIMOV, A.; VASIL'YEV, V.; KROPOV, S.

For the best production in the world. Sov. profsoiuzy 17 no.18:15-18 S '61. (MIRA 14:8)

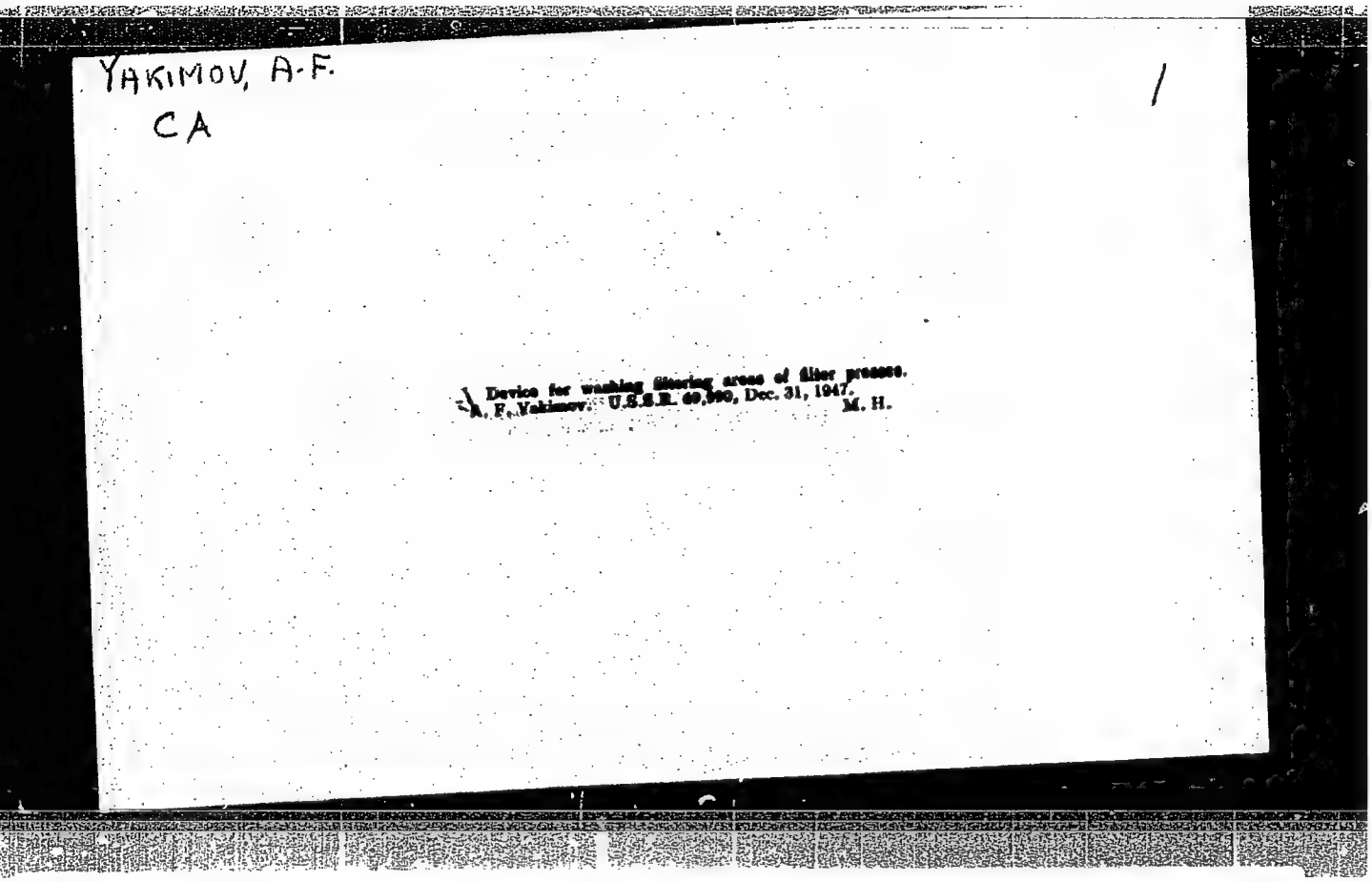
1. Predsedatel' zavkoma Moskovskogo zavoda shlifoval'nykh stankov (for Yakimov). 2. Zamestitel' direktora Eksperimental'nogo nauchno-issledovatel'skogo instituta metallorezhushchikh stankov (ENIMS) (for Vasil'yev). 3. Sekretar' Moskovskogo gorodskogo soveta profsoyuzov (for Kropov).

(Moscow—Machine-tool industry—Quality control)
(Moscow—Trade unions)
(Socialist competition)

YAKIMOV, A.; VASIL'CHENKO, I.T.

Reviews and bibliography. Rast. res. 1 no.1:159-160 '65.
(MIRA 18:6)

1. Botanicheskiy institut im. V.L. Komarova AN SSSR, Leningrad.



YAKIMOV, A.F.

CA

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Device for washing filtering areas of filter presses. A. F. Yakimov. U.S.S.R. 69,990, Dec. 31, 1947. M. H.

YAKIMOV, A. F.

Chemical Abstracts
Vol. 48 No. 5
Mar. 10, 1954
Sugar, Starch, and Gums

Improved system for removing condensate. A. F. Yakimov (*Sugar Refinery Lgov, Kursk, U.S.S.R.*). *Sakharnaya Prom.* 27, No. 8, 22-6(1953).—Conventional traps with floats in many sugar factories are replaced with hydraulic columns 8 m. high connected to calandrias or heaters. Complete description of the installation is given. V. E. B.

Yakimov, A. F.

✓ Experience with vacuum-filters. A. F. Yakimov (Sugar Refinery, Olymsk). *Sakharnaya Prom.* 29, No. 5, 24-7 (1955).—Recommendations for operation of vacuum-filters in beet-sugar factories. V. E. Baikow

YAKIMOV, A.F.

Some aspects of the improvement of equipment and plant layout.
Sakh. prom. 33 no.11:13-15 N '59 (MIRA 13:3)

1. Kshenskiy sakharnyy zavod.
(Sugar manufacture--Equipment and supplies)

YAKIMOV, A.P.

New method of juice purification in sugar-beet manufacture.
Sakh.prom. 34 no.7:17-21 Jl '60. (MIRA 13:7)

1. Kshenskiy sakharnyy zavod.
(Sugar manufacture)

YAKIMOV, A.F.

Collective of the Kshen Sugar Factory strives for technological progress. Sakh. prom. 37 no.3:5-8 Mr '63. (MIRA 16:4)

1. Kshenskiy sakharnyy zavod.
(Sovetski (Kursk Province)—Sugar factories)

YAKIMOV, A.F.

Innovations in the procedures and equipment of the Kshen Factory. Sakh. prom. 37 no.4:45-49 Ap '63. (MIRA 16:7)

1. Kshenskiy sakharnyy zavod.
(Kshen—Sugar manufacture)

YAKIMOV, A.F.

Unsatisfactory design and poor performance of the VTa-58 evaporating apparatus. Sakh. prom. 37 no.10:14-20 O '63. (MIRA 16:12)

1. Kshenskiy sakharnyy zavod.

YAKIMOV, A.G., gornyy inzhener.

Portable mist projector. Gor. zhur., no.3:73 My '57. (MLRA 10:4)
(Mine dusts)

YAKIMOV, A.G.

Pneumatic-hydraulic method of dust removal from crushing sections of ore-dressing plants. Trudy Gor.-geol. inst. UFAN SSSR no.34:153-157 '58. (MIRA 14:10)
(Dust--Removal)
(Ore dressing--Equipment and supplies)

YAKIMOV, A.G., gornyy inzhener

Study of the dust content in the air of a pit. Bor'ba s sil. (MIRA 12:9)
3:146-150 '59.
(MINE DUSTS)

YAKIMOV, A.G., inzh.

Pneumo-hydraulic dust control in ore-dressing plants. Bezop. truda v prom. 3 no.6:14 Je '59. (MIRA 12:10)
(Dust--Removal)

YAKIMOV, A.G., gronyy inzhener

Dust load on human lungs as a factor in the danger of getting silicosis in mining. Sbor. rab. po silik. no.3:33-39 '61. (MIRA 15:10)

1. Irkutskiy gosudarstvennyy institut redkikh metllov.
(Lungs—Dust diseases)

YAKIMOV, A.P.

Some cultivated perennial species of Polygonum L. as producers of vitamins. Rast. res. 1 no.2:238-241 '65.
(MIRA 18:11)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

IVANOVA, Ye.V.; YAKIMOV, A.P.

Cultivation of polygonum coriarium Grig. in the White Russian. S.S.R. Sbor. nauch. rab. TSBS no.1:19-24 '60. (MIRA 14:10)

(White Russia—Knotweed)

IVANOVA, Ye.V.; CHEKALINSKAYA, I.I.; YAKIMOV, A.P.

Effect of azotobacterin and mineral fertilizers on the productivity of Polygonum coriarium. Sbor. nauch. rab. TSBS no.2:149-153 '61. (MIRA 15:7)

(Polygonum--Fertilizers and manures)

YAKIMOV, A.T.

AVRAAMOVA,A.A.; ALAMPIYEV,P.M.; BADIR'YAN,G.G.; BORODIN,I.A.; VASYUTIN, V.F.; GUBER,A.A.; GURARI,Ye.L.; DANILOV,A.D.; DEREVYANKO,P.A.; YELSUKOV,M.P.; KOLOSKOV,P.I.; LAPTEV,I.D.; LEONT'YEV,N.F.; PECHNIKOV,A.M.; PROKHOROV,A.I.; RUDENKO,N.A.; CHERDANTSEV,G.N.; YAKIMOV,A.T.

P.V.Pogorel'skii; Obituary. Izv.AN SSSR. Ser.geog. no.3:94-95 My-Je '55. (MLRA 8:9)

(Pogorel'skii, P.V., 1899-1955)

DYLYKOV, S.D., otv. red.; YAKIMOV, A.T., otv. red.; LIOZNOV, A.G., red. izd-va; YAZLOVSKAYA, E.Sh., tekhn. red.

[The People's Republic of Mongolia, 1921-1916] Mongol'skaia Narodnaia Respublika, 1921-1961; sbornik statei. Moskva, Izd-vo vostochnoi lit-ry, 1961. 247 p. (MIRA 14:11)

1. Akademiya nauk SSSR, Institut narodov Azii.
(Mongolia--Economic conditions)

YAKIMOV, A. V.

YAKIMOV, A. V. -- "The Effect of Rigidity of Tooth Grinding Machine Tools on the Precision of Work." Min Higher Education USSR. Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze. Moscow, 1955. (Dissertation for the Degree of Candidate in Technical Sciences).

So.: Knizhnaya Letopis', No. 2, 1956.

PODZEV, A.V., kandidat tekhnicheskikh nauk; YAKIMOV, A.V., inzhener.

Dynamics of gear grinding and its effect on precision in machining gear wheels. Trudy MAI no.70:41-56 '56. (MLRA 9:12)
(Gear cutting)

YAKIMOV, A.V., dotsent, kand. tekhn. nauk; BODZICH, M.I., dotsent

Investigation of gear grinding. Izv. vys. ucheb. zav.; mashinostr. no.9:133-145 '58. (MIRA 12:10)

1.Zaporozhskiy mashinostroitel'nyy institut.
(Gear cutting) (Grinding and polishing)

S/123/61/000/013/011/025
A052/A101

AUTHOR: Yakimov, A. V.

TITLE: Investigation of rigidity of gear grinding machine tools

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 13, 1961, 72, abstract 13B488 ("Tr. Zaporozhsk. mashinostroit. in-ta", 1959, no. 3, 83-116)

TEXT: On the basis of an investigation of rigidity of the elastic system consisting of machine (Maag)-tool-workpiece the following conclusions are made: 1) The components of the cutting force at the change over from one tooth to the next do not keep a constant value. At the initial moment of grinding after adjustment of the wheel (that is when the first 5-10 teeth are ground) the cutting force increases sharply. During the further work the increase of the force becomes slower. When the first 15 teeth of a gear are ground with the depth of cut t = 0.05 mm and the tooth length of 20 mm, the cutting force component P_y increases by 1 kG; in the course of further grinding an increase of P_y by 1kG corresponds to 80 teeth ground. 2) The forces of inertia of rocking parts of the machine vary according to the sinusoidal law and have maximum values in the extreme positions of the transverse table travel. The fluctuation frequency

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